

CLAIM AMENDMENTS

1. (Previously amended): A method comprising:
operating a turbocharger including a variable geometry turbine having an inlet passage to the turbine with a fluid flow area, the fluid flow area having a normal size for an internal combustion engine operating in a normal operating range;
reducing the size of the fluid flow area from the normal size to a reduced size for exhaust gas heating, said reducing exposes a bypass fluid flow path to the exhaust gas within the inlet passage, the bypass fluid flow path is normally blocked when the fluid flow area is of the normal size; and
bypassing a portion of the exhaust gas entering the inlet passage around the guide vanes of the variable geometry turbine.
2. (Original): The method of claim 1, wherein in said bypassing the portion of the exhaust gas flows internally within the turbocharger.
3. (Original): The method of claim 1, wherein said reducing includes moving a portion of the variable geometry turbine.
4. (Original): The method of claim 3, wherein said moving includes axial movement of a nozzle ring.
5. (Cancelled):
6. (Original): The method of claim 1, wherein the fluid flow area has a maximum flow area, and wherein the flow area corresponding to said reduced size is within a range of about zero percent to about twenty-five percent of the maximum flow area.

7. (Previously Amended): The method of claim 1, wherein the portion of the exhaust gas from said bypassing reenters the rest of the exhaust gas flowing to the turbine wheel from the inlet passage at a steep angle or substantially perpendicular thereto.

8. (Original): The method of claim 1, which further includes determining the temperature of the exhaust gas passing from an outlet of the variable geometry turbine, and further includes operatively controlling said reducing based upon whether the temperature of the exhaust gas passing from the outlet of the variable geometry turbine satisfies a threshold temperature condition.

9. (Cancelled).

10. (Original): The method of claim 1, which further includes passing the exhaust gas from the variable geometry turbine to an after-treatment system; and

which further includes determining the temperature of the exhaust gas in the after-treatment system, and operatively controlling said reducing based upon whether the temperature of the exhaust gas in the after-treatment system satisfies a threshold temperature condition.

11. (Original): The method of claim 10, wherein the threshold temperature condition is within a range of about 500° F to about 700° F.

12. (Cancelled):

13. (Currently Amended): The method of claim ~~12~~1, wherein in said ~~moving~~ reducing the nozzle ring moves in an axial direction; and wherein in said bypassing the portion of the exhaust gas flows within the turbocharger.

14. (Cancelled).

15. (Cancelled):

16. (Cancelled):

17. (Cancelled):

18. (Cancelled):

19. (Cancelled):

20. (Cancelled):

21. (Cancelled):

22. (Cancelled):

23. (Cancelled):

24. (Cancelled):

25. (Cancelled):

26. (Cancelled):

27. (Cancelled):

28. (Cancelled):

29. (New): The method of claim 1, wherein in said bypassing the portion of the exhaust gas flows internally within the turbocharger;

wherein said reducing includes moving a portion of the variable geometry turbine;

wherein the fluid flow area has a maximum flow area, and wherein the flow area corresponding to said reduced size is within a range of about zero percent to about twenty-five percent of the maximum flow area;

wherein the portion of the exhaust gas from said bypassing reenters the rest of the exhaust gas flowing to the turbine wheel from the inlet passage at a steep angle or substantially perpendicular thereto;

which further includes determining the temperature of the exhaust gas passing from an outlet of the variable geometry turbine, and further includes operatively controlling said

reducing based upon whether the temperature of the exhaust gas passing from the outlet of the variable geometry turbine satisfies a threshold temperature condition.

30. (New): The method of claim 29, which further includes passing the exhaust gas from the variable geometry turbine to an after-treatment system.

31. (New): The method of claim 29, wherein said moving includes axial movement of a nozzle ring.